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Implementing a New Model of Integrated Women's Health in Academic Health Centers: Lessons Learned from the National Centers of Excellence in Women's Health

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ABSTRACT

The National Centers of Excellence in Women's Health Program (CoE) represents a new model for women's health in academic health centers that unites women's health research, teaching, clinical care, public education and outreach, and career advancement for women in the health sciences. Lessons learned from the first 3 years of implementation indicate that this type of model requires a transformation from the traditionally fragmented set of activities in academic health centers to an integrated system united around the goal of advancing women's health. The transformation requires institutional commitment, dedicated players, and an ability to build on existing resources and bring added value to the institution. Challenges and strategies to link women's health activities and increase collaboration are also discussed.

INTRODUCTION

During the early 1990s, great strides were made in women's health research, in the analysis of healthcare delivery to women, and in the incorporation of women's health into medical education. These advances, however, often occurred in isolation, narrowing the focus on either clinical, research, or teaching efforts and raising the potential for perpetuation of erroneous assumptions about women's health in the practice and teaching of medicine. Moreover, the patchwork nature of women's health, both as a discipline and as a clinical service, typically spread across obstetrics/gynecology and other health specialties, had resulted in a system that ran the risk of inadequately addressing health promotion and disease prevention for women across the life span.[1,2]

In response, the Office on Women's Health within the U.S. Department of Health and Human Services (DHHS) established the National

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Centers of Excellence in Women's Health (CoE) program in 1996. This program was based on a model of integrated women's health, uniting research, medical training, clinical care, public education, community outreach, and the career advancement of women in the health sciences. The CoE designation and contract were awarded competitively to leading academic health centers around the country that could demonstrate a strong preexisting infrastructure in women's health research, teaching, and healthcare delivery. The goal of the program was to establish standards of excellence for a comprehensive, multidisciplinary, and culturally competent approach to women's health.

The proposed academic health center CoE model was built on the premise that the integration of women's health activities across the academic health center would result in better outcomes for patients as well as a more informed and coordinated system of research and training. One existing model, the Veterans Administration's Primary Ambulatory Care and Education Program (PACE), also combined comprehensive services, research, healthcare provider training, and dissemination of new findings in procedures and outcomes. Evaluation results from that program demonstrated numerous benefits, including improved continuity of care, more preventive services, better detection of depression, improved patient satisfaction, decreased hospitalizations, and fewer deaths.

The requirement of the CoE contract was that its elements be integrated. In the healthcare literature, the term *integration* is used to describe (1) the coordination of multiple disciplines in clinical care,[3–5] (2) the merger of mainstream and complementary medicine,[6] (3) the use of information systems to track patients or measure quality of care,[(7)] (4) the incorporation of women's health issues into the medical curriculum,[8,9] or (5) various financial and organizational arrangements (horizontal or vertical integration).[10–12] In contrast, the CoE model defines *integration* as a dynamic and multidisciplinary linkage of women's health practice with research, teaching, education, community outreach, and faculty development.

Currently, 15 academic health centers hold the designation of CoE. They include Boston University, University of California at Los Angeles, University of California, San Francisco, Harvard University, University of Illinois at Chicago, Indiana University School of Medicine, Magee-Women's Hospital, MCP Hahnemann University, University of Michigan, University of Pennsylvania, University of Puerto Rico, Tulane University and Xavier University of Louisiana, Wake Forest University, University of Washington at Seattle, and University of Wisconsin at Madison.

This overview article describes some of the lessons learned in developing an integrated women's health system and may have value for other academic medical centers addressing their need to develop a comprehensive women's health program. The information is based primarily on the experiences of the first 6 vanguard centers (Magee-Womens Hospital, MCP Hahnemann Univeristy, Ohio State University, University of Pennsylvania, University of California, San Francisco, Yale University), designated as CoEs in October 1996. Structured interviews with center directors, annual reports, and site visit discussions were used to obtain the data. Where noted, additional examples from centers designated in years two and three, are used.

IMPLEMENTATION OF THE CoE MODEL

The CoE agenda is ambitious. Ideally, it calls for a major transformation in the conceptualization and practice of women's health. It represents a shift from the traditionally disconnected set of activities that take place within large academic health centers as well as a cultural shift toward an interdisciplinary and collaborative approach to women's health. It requires bringing together individuals and realms of activities in research, teaching, and clinical care that would otherwise never intersect. In addition, the CoE model calls for a one-stop shopping system of comprehensive services for women. The goal of this system has been to overcome the fragmentation in services among internal medicine, family practice, obstetrics/gynecology, specialty care, and other health education and support services.

Given the current climate of healthcare reform, reduced reimbursements for primary care services, and cuts in federal funding facing academic health centers, the centers' ability to fully implement the CoE model has been highly dependent on several critical factors: the institutional commitment, the support of key players, and the centers' ability to build on existing resources and bring added value to the institution.

Institutional commitment

Hospitals and healthcare centers across the country have been capitalizing on the growing women's health market for the past two decades with an increasing array of women's health centers and services. The goal of the CoE program, however, has been to capitalize on the research, training, service delivery, and career development potential of academic health centers to establish standards of excellence for women's health in all four of these areas. As a result, implementation of the full range of elements critical to the CoE model has been impossible without an institutional commitment to women's health that has extended far beyond marketing considerations. The institutional buy-in for the CoE program has had to be both financial and philosophical.

Experience has demonstrated that the resources needed to implement the CoE model are considerable, including fully operational women's health clinical service facilities, research facilities, teaching facilities, student training and placement opportunities, technological infrastructure, staff resources, education specialists, administrative support, outreach workers, information specialists, technical support staff, service providers, researchers, and teaching faculty from numerous disciplines. Also important are partnerships and linkages with outside organizations both locally and nationally.

The federal funding awarded with the program has not begun to match the costs associated with its implementation. The Office on Women's Health award has averaged only about $172,000 per center per year. However, the experience of all the centers has been that the CoE designation has allowed them to leverage considerable funds and resources for women's health activities both from within their own institutions and from public and private outside funding sources.

Beyond an investment of money and resources, the CoE experience has demonstrated that it requires an institutional environment that is philosophically committed to women's health. This has taken different forms across the centers. Two of the 6 vanguard CoE programs are based in institutions with historical roots in the teaching and practice of women's health, thus benefiting from an inherent dedication to women both as health professionals and as patients. Other centers are located in institutions where there has been a formal effort to elevate women's health as an institutional priority. Examples from all 18 centers include the formation of an interdisciplinary task force to develop a women's health agenda, the commitment of institutional funds for women's health initiatives, the development of operational guidelines for a new women's health focus, and the elevation of women's health from a departmental to an institutional initiative.

One effective method employed by several of the first CoE has been to implement reorganization of women's health issues in the academic medical center during a time of institutional change. At these times, institutions are examining old structures and creating blueprints for conceptualization of program missions and goals. Specific components of women's health, organizational structures, and financial arrangements for linking and implementing activities have thus been defined. These formal processes have served to rationalize the institutional approach to women's health and to underscore the similarities and common women's health goals of differing departments within the institution.

Key players

Another important force for change in institutional approach and dedication to women's health has come from constant pressure exerted by dedicated individuals within the academic health center. These have included both high-level administrators and people within the institution pushing for change from the bottom up. The experience across the CoE is that when the movement for change is spearheaded by top administrators or senior faculty, it is more quickly empowered. Nonetheless, throughout the CoE, the number of key allies has also included junior and less well known faculty members.

Students have also been key agents for change in the academic health centers. They have formed their own leadership development group to encourage young women to consider careers in health and science, collaborated with the Student Chapter of the American Medical Women's Association to establish a Gender Equity Award conferred on professors who demonstrate gender equity in the clinic or classroom, and stimulated faculty and administrative buy-in for curricular and training revisions to more fully address women's health issues. Some centers have found that even individuals who are only tangentially

related to the academic medical center have proven to be key allies in women's health. Examples include female financial donors, the female relatives of high-level administrators, and talented development or public relations officers who are dedicated to women's health issues.

Common qualities seem to run across many of these key players. They tend to be well regarded in their individual fields and devoted to the goal of comprehensive and integrated women's health. They generally have a deep understanding of the administrative needs and constraints of their institutions and a sophisticated appreciation of the influence and management of complex health systems and practices within their healthcare environment. They are willing to dedicate themselves to the women's health cause at some cost to their own careers, recognizing that many of their efforts are not rewarded in the academic system.

Building on existing resources

One of the most significant effects of the CoE award has been the way it has enabled centers to link their preexisting clinical, research, education, and public outreach resources in women's health in such a way that the whole has indeed become greater than the sum of its parts. Because of the limited funding accompanying the CoE designation, the strategy undertaken by the centers has been to build on existing resources—creating tighter connections between women's health activities, a greater shared commitment, and ultimately a stronger system of care for women.

One method used by all 15 of the current centers has been to maximize the collective experience of faculty and researchers by bringing them together through interdisciplinary workshops, seminars, and meetings. One example has been efforts to link clinicians and basic scientists to facilitate the transfer of knowledge from bench to bedside. Another has been to take advantage of preexisting infrastructures for electronic technologies to either improve access to women's health services through telemedicine, expand patient education resources using the Internet, develop computerized women's health learning modules for medical students, or establish electronic databases for women's health researchers. Most of the CoEs have also taken advantage of the pool of talent represented by their students to develop women's health teaching instruments, research projects, or leadership development initiatives for young women in the health sciences.

Bringing added value to the institution

The experience of the CoEs indicates that in the prevailing healthcare environment, no academic health system can afford to install a new administrative entity that consumes valuable resources. Any new entity, particularly one that is poorly funded, must bring efficiencies and add value to the institution. In addition, it must avoid the duplication of existing services or the creation of additional administrative procedures.

All 15 of the current CoEs have employed a number of strategies for maximizing their limited resources to bring added value to their institutions. The integration of women's health activities and care coordination for women's health services has constituted a key added value of the program. Similarly, the rapid translation of research findings into clinical practice has been an important benefit. The CoEs have also provided services for faculty from multiple departments, disseminating information about funding opportunities, assisting with grant writing, providing internal scientific review boards for research programs, providing consultation on and assistance in subject recruitment, establishing resource databases, and offering career advancement opportunities for junior level faculty. The CoE designation has also had the effect of bringing added visibility to the institution, its women's health activities, and its collaborations with outside organizations and networks.

In some cases, centers have been able serve as a terrain for interdisciplinary collaboration, helping to sidestep turf battles between specialties, departments, or schools. The CoEs have also been well placed to serve as a contact point for extramural funders wishing to explore possible collaborations with faculty working in women's health areas. Thus, the CoE designation has brought added funding, enhanced women's health activities, and added significant credibility to women's health efforts in the academic health centers.

CAPTURING OPPORTUNITIES FOR CHANGE

As described earlier, the CoEs have taken advantage of periods of change within their insti-

tutions to further their women's health agenda. The most widespread example of this strategy has been with regard to the integration of women's health into the medical curriculum and postgraduate training. The CoEs have used periodic curricular revisions, positioning their staff on curriculum review committees, to ensure that women's health issues are addressed throughout the medical training program. In some cases, this has included the institution of mandatory courses in women's health and physiology, as well as expansion of women's health elements in internship and residency programs. Some of the CoEs have also been able to take part in curriculum revisions in disciplines other than medicine, introducing women's health courses or elements at the undergraduate level or in such disciplines as public health and psychology.

The increasing enrollment of women in medical schools also has created an opportunity for change. This demographic shift, coupled with an increase in the number of female faculty members in academic medical institutions, has helped to create the momentum for a greater focus on women's health.

In face of changes in the healthcare market, the complex negotiations involved in setting up partnerships with private physicians' practices or in merging hospitals and universities have also presented opportunities to revisit the ways in which women's health is taught and practiced.

Finally, the very designation as a National Center of Excellence in Women's Health and implementation of the CoE contract components have served as a stimulus to the creative efforts of the individuals associated with the program. They have resulted in the formulation of strategies and collaborations for a more integrated and multidisciplinary approach to women's health. The obligations of the contract have given the CoEs added leverage with their administrators to develop or expand the institutions' women's health capacities.

ESTABLISHING INTEGRATED LINKAGES: CHALLENGES AND STRATEGIES

One of the most important roles of the CoE program is to promote collaborations and linkages both within the academic health center and with its partners. This requires substantial emphasis on multidisciplinary collaborations among individuals in the university, the medical center, the medical school, affiliated private practices, and outside organizations. It is an effort fraught with obstacles. Each of the 15 current CoEs has experienced difficulties promoting collaborations. One obstacle has been engaging elements within the institution that were already strong and independent. This is particularly evident when trying to pull together groups that may be competing for funding and resources. Some centers have encountered difficulties uniting basic science researchers with clinical researchers. Drawing different medical specialists into collaborative projects, including those who do not identify themselves as working on women's health issues, has been another challenge. Conversely, some centers have encountered resistance to interdisciplinary collaboration from their obstetricians and gynecologists, who see themselves as the traditional providers of women's healthcare and reject collaborative efforts with other specialties.

Another challenge has come from female patients themselves, who in some cases have had to be convinced that comprehensive women's health services are more desirable than the traditionally fragmented system of care to which they have become accustomed. This has particularly been the case in markets in which female patients have been confused by the plethora of services labeled as "women's health" or "comprehensive services."

Several of the CoEs have faced challenges associated with their organizational structure that can include partnerships between very different entities. The establishment of partnerships between the university and other entities (e.g., private practices, hospitals, other organizations) has encountered hurdles related to issues of ownership, personnel, institutional culture differences, and personality conflicts. The formation of these partnerships has proven to demand strong negotiation skills and a significant investment in time. However, when successful, they have been very valuable in bringing together the diverse strengths and experiences of the private, community, and academic sectors.

The CoEs have used various strategies to promote women's health linkages and collaborations in their institutions and with local organizations, such as rewarding collaborative efforts with in-kind resources, such as laboratory space, access to data and research subjects, electronic information resources, and student training oppor-

tunities. Other collaborative strategies already mentioned have included sponsorship of interdisciplinary meetings, grant writing support and information, and the provision of a terrain for collaboration.

Several of the centers have established interdisciplinary teams to coordinate the management of care for their female patients. All of them have integrated an interdisciplinary team approach in the training of medical students and residents. The patient education activities of the CoEs have enhanced doctor/patient communications, saved time for the healthcare providers who can refer patients to the CoEs for education, and empowered patients to be better informed healthcare consumers. Many of the outreach and education activities of the centers have fostered collaborations between the centers and outside organizations. Several of the CoEs have established partnerships with local high schools to introduce teenagers to the health sciences and to provide internship opportunities for those interested in exploring medical and scientific careers. Partnerships with community organizations have provided subject recruitment and public health education opportunities, valuable community feedback, and placement opportunities for medical students interested in community-based research or care.

Having an explicit institutional mandate or set of goals for advancing women's health has further helped the CoEs to resolve institutional divisions. Moreover, having influential women's health advocates in positions of leadership in the academic health center has helped to cultivate interdisciplinary collaborations. The common goal of improving women's health has also fostered collaborations between the CoE and state or local policymakers, community councils, and numerous private organizations.

ONE SIZE DOES NOT FIT ALL

An important lesson of the CoE program is that it is not a one-size-fits-all model. Although all the 15 CoEs share a common mission and set of core program components, they reflect broad geographic and cultural diversity as well as important differences in their organizational characteristics and structures. As a result of this diversity, the CoE model has had to remain sufficiently flexible to accommodate the variations among centers and to capitalize on their experiences and resources while still defending the model's integrity in the face of an ever changing healthcare environment.

Additional lessons will be learned, no doubt, as CoEs implemented in the second and third years of the program gain experience. All 18 original centers are participating in a qualitative evaluation and outcomes project. All 15 current CoEs are participating in a quantitative evaluation project. These projects, when completed in about 2 years,[13] will provide data on patient satisfaction and common themes on what works and what does not work among CoEs. At the time the evaluation projects are completed, the first generation of CoEs, designated in 1996, will be 6 years into their contract (and the others 5 and 4 years, respectively), and some useful data on curriculum reform, increases in women faculty/leadership, improved clinical care, advances in research, and effective community outreach and education may become available.

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